

CLAIMS

1. A bed to adjust a slope of the bed 12 according to brain waves which an ankles fixing device 14 is mounted at one side thereof, and which is capable of rotating  
5 within predetermined angles around a rotation central hinge 18 which is installed at one side of the lower surface of the bed, wherein the bed 12 comprises

brain waves detection means 50 which is mounted at another side of the bed 12, and which user is able to put on;

means for separating alpha waves and beta waves having predetermined  
10 frequency range from output signals of the brain waves detection means 50; and

means for adjusting the inclination of the bed 12 so that the maximum alpha waves can be detected based on the alpha waves and the beta waves.

2. The bed according to claim 1, wherein the adjustment means comprises  
15 a control section 60 which outputs a rotation instruction so as to rotate the bed 12 by predetermined angles;

a hydraulic pressure driving section 62 which is installed below the bed 12 and which generates a hydraulic pressure signal based on the rotation instruction; and

a hydraulic pressure cylinder 40 of which one side is fixed at a lower frame 16 to  
20 support lower part of the bed 12 and the other side is fixed on a lower surface of the bed 12, and which is capable of expanding or withdrawing according to the hydraulic pressure signal of the hydraulic pressure driving section 62.

3. The bed according to claim 2, wherein the control section outputs the  
25 rotation instruction so as to rotate the bed 12 clockwise or counterclockwise at 1°

intervals in the range of  $0^\circ$  and  $80^\circ$  ,

and further comprises a timer 23 to set an operation time.

4. The bed according to claim 2, wherein the control section further  
5 comprises means for converting a feedback signal of the hydraulic pressure cylinder 40 to  
an inclination angle of the bed 12.

5. The bed according to claim 4, wherein further comprising an inclination  
display section 22 for displaying the inclination angle to be outputted by the converting  
10 means, and which is installed on one side of the bed 12.

6. The bed according to claim 1, wherein further comprising means for  
displaying alpha waves and beta waves separated by the separation means.

15 7. A method to adjust a slope of a bed according to brain waves, wherein  
the method comprises steps of:

inclining the bed 12 to predetermined reference angles around a rotation central  
hinge 18 mounted on one side of a lower part of the bed 12 of which an ankles fixing  
device 14 is mounted at one side(S10);

20 detecting brain waves from brain waves detection means 50 which is mounted at  
another side of the bed 12, and which user is able to put on(S20);

separating alpha waves and beta waves having predetermined frequency range  
from the brain waves(S30);

rotating the bed 12 from the reference angle and monitoring the variation of alpha  
25 waves and beta waves in a real time; and

maintaining the inclination of the bed 12 for predetermined period when the maximum alpha waves are detected(S50).

8. The method according to claim 6, further comprising the step of  
5 recovering the inclination of the bed 12 to the reference angle when the detected beta waves are over a limit or pulse waves are not regular(S60).

9. The method according to claim 6, further comprising the step of reducing  
the inclination angle of the bed 12 decrementally as an operation time approaches a  
10 predetermined maximum operation time set by a timer.